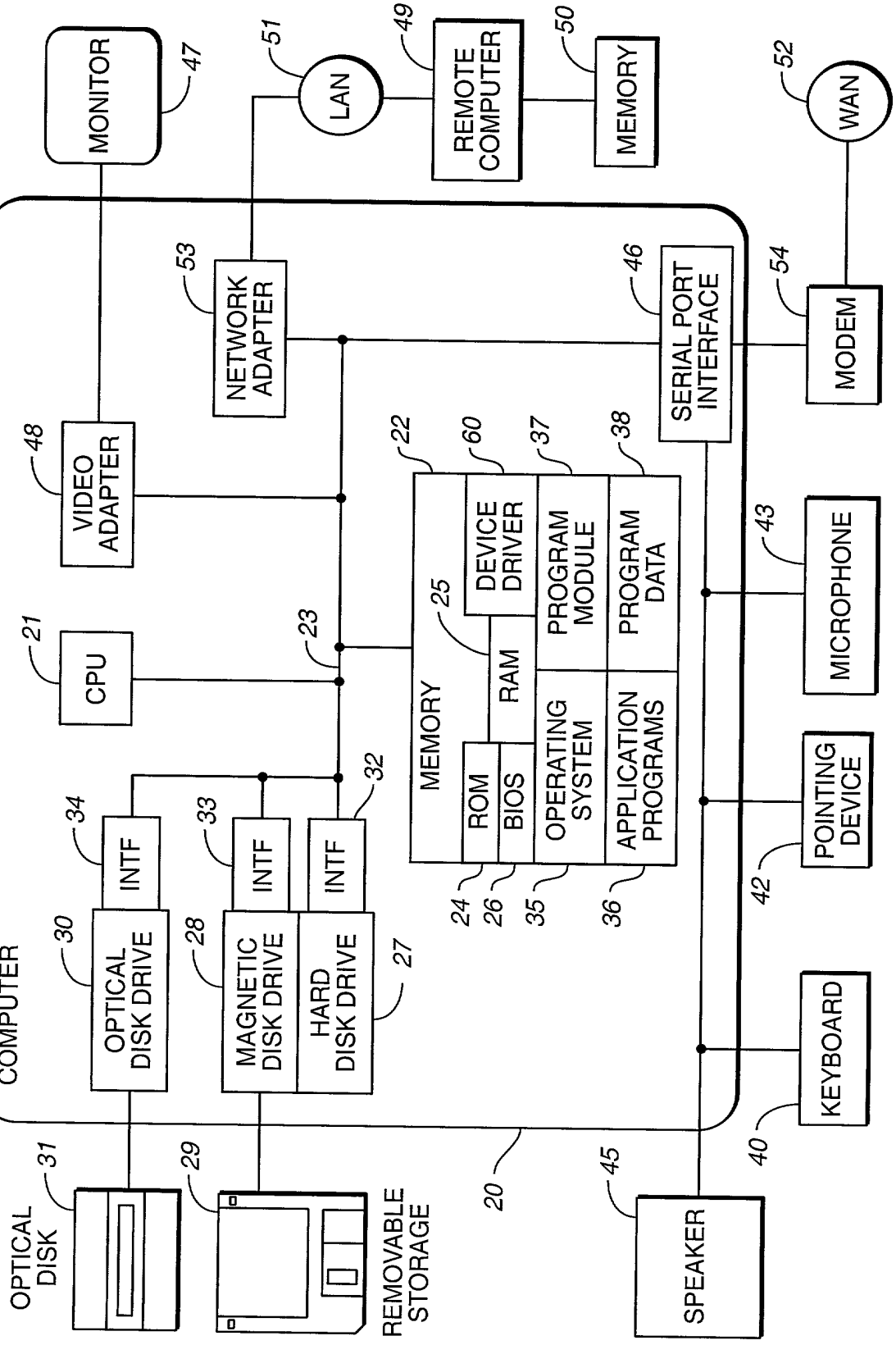

MONITOR
47
LAN
51
REMOTE COMPUTER
49
MEMORY
50
WAN
52
NETWORK ADAPTER
53
SERIAL PORT INTERFACE
46
MODEM
54
VIDEO ADAPTER
48
CPU
21
23
MEMORY
22
ROM
24
BIOS
26
RAM
25
OPERATING SYSTEM
35
APPLICATION PROGRAMS
36
DEVICE DRIVER
60
PROGRAM MODULE
37
PROGRAM DATA
38
MICROPHONE
43
POINTING DEVICE
42
KEYBOARD
40
SPEAKER
45
INTF
34
INTF
33
INTF
32
OPTICAL DISK DRIVE
30
MAGNETIC DISK DRIVE
28
HARD DISK DRIVE
27
COMPUTER
20
OPTICAL DISK
31
REMOVABLE STORAGE
29

FIG._1

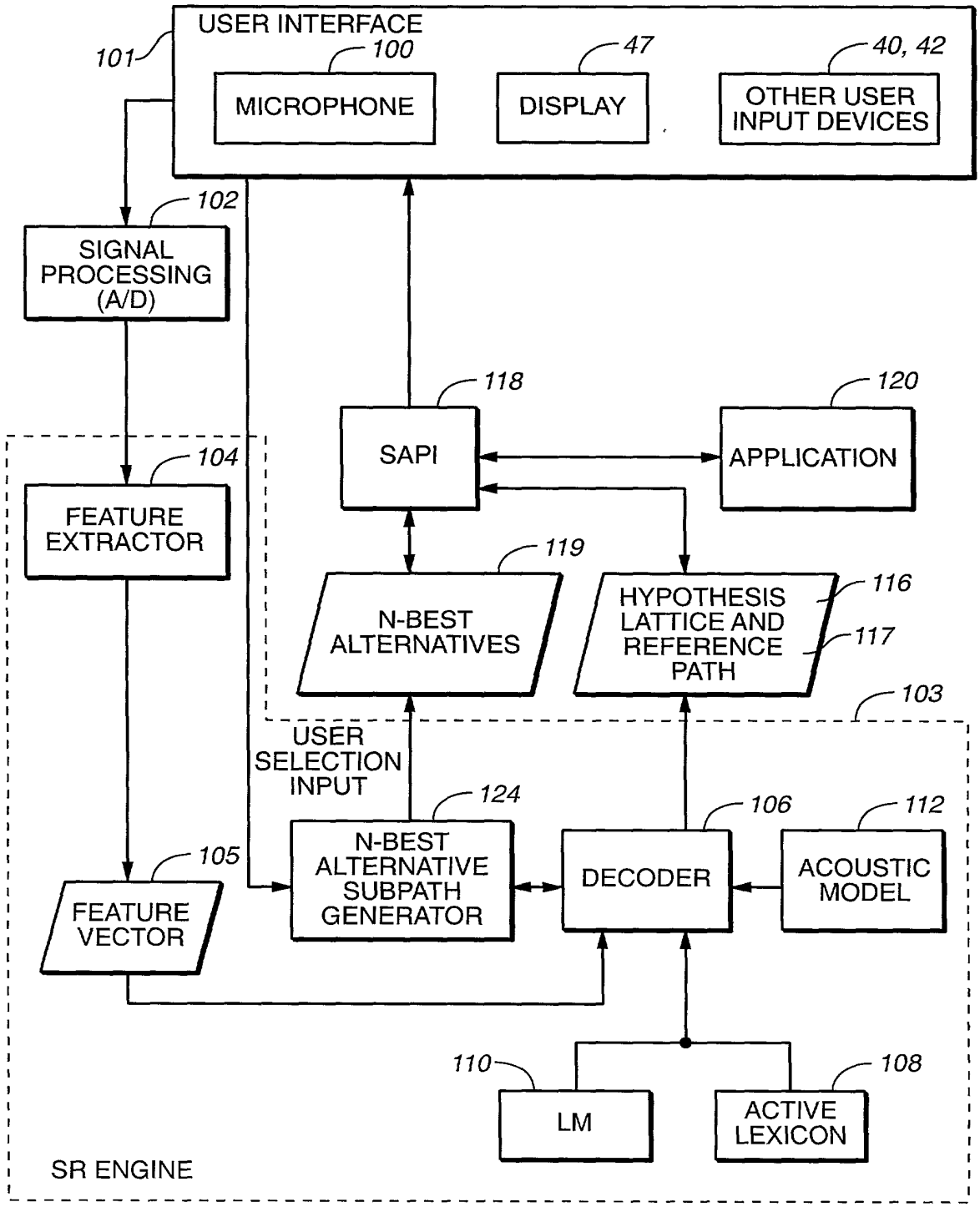

USER INTERFACE
101
100
MICROPHONE
47
DISPLAY
40, 42
OTHER USER INPUT DEVICES
102
SIGNAL PROCESSING (A/D)
118
SAPI
120
APPLICATION
104
FEATURE EXTRACTOR
119
N-BEST ALTERNATIVES
116
HYPOTHESIS LATTICE AND REFERENCE PATH
117
103
USER SELECTION INPUT
124
N-BEST ALTERNATIVE SUBPATH GENERATOR
106
DECODER
112
ACOUSTIC MODEL
105
FEATURE VECTOR
110
LM
108
ACTIVE LEXICON
SR ENGINE

FIG._2

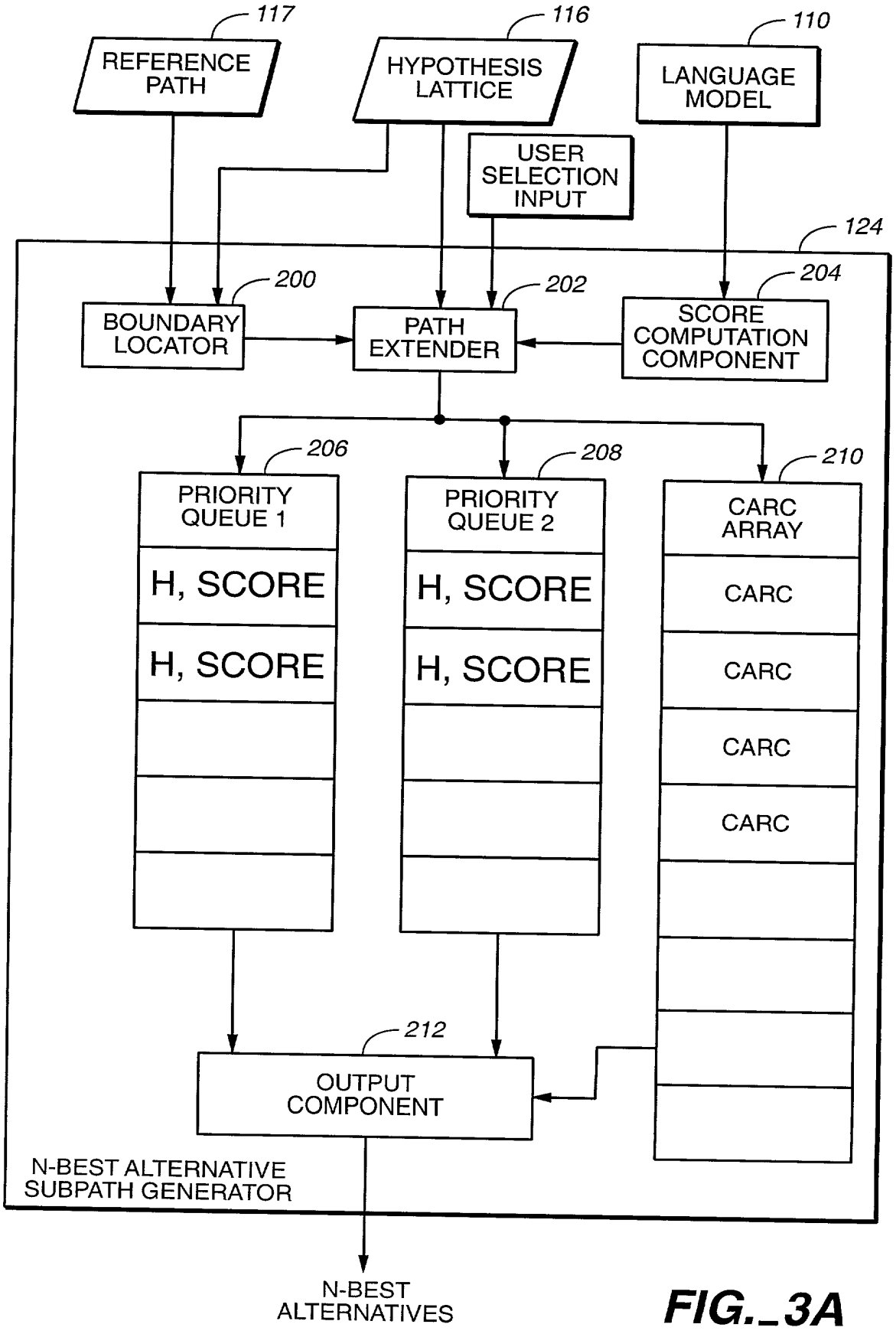

117
REFERENCE PATH
116
HYPOTHESIS LATTICE
110
LANGUAGE MODEL
USER SELECTION INPUT
124
200
BOUNDARY LOCATOR
202
PATH EXTENDER
204
SCORE COMPUTATION COMPONENT
206
PRIORITY QUEUE 1
H, SCORE
H, SCORE
208
PRIORITY QUEUE 2
H, SCORE
H, SCORE
210
CARC ARRAY
CARC
CARC
CARC
CARC
212
OUTPUT COMPONENT
N-BEST ALTERNATIVE SUBPATH GENERATOR
N-BEST ALTERNATIVES

FIG._3A

CARC OBJECT DATA STRUCTURE
INDEX OF THIS OBJ IN CARC ARRAY
WORD HYPOTHESIS INDEX
PATH LENGTH
INDEX OF PREV. CARC OBJ
DICTIONARY WORD INDEX OF PRECED. WORD
DICTIONARY WORD INDEX OF WORD PRECEDING THE PRECEDING WORD

FIG._3B

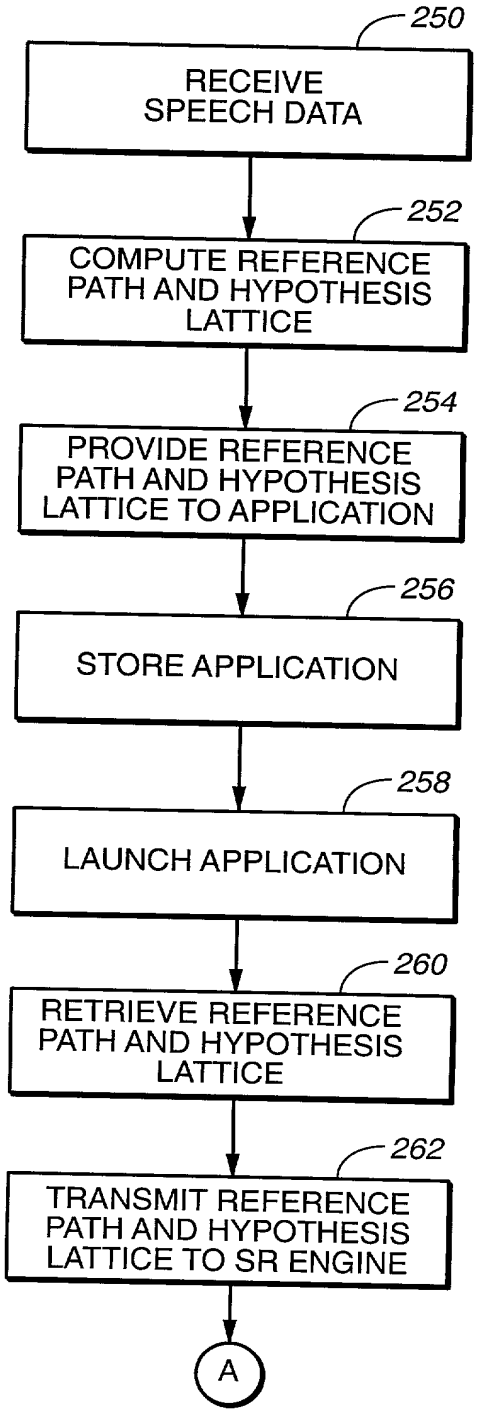


FIG._4A

09/814,762 - 03/21/2001

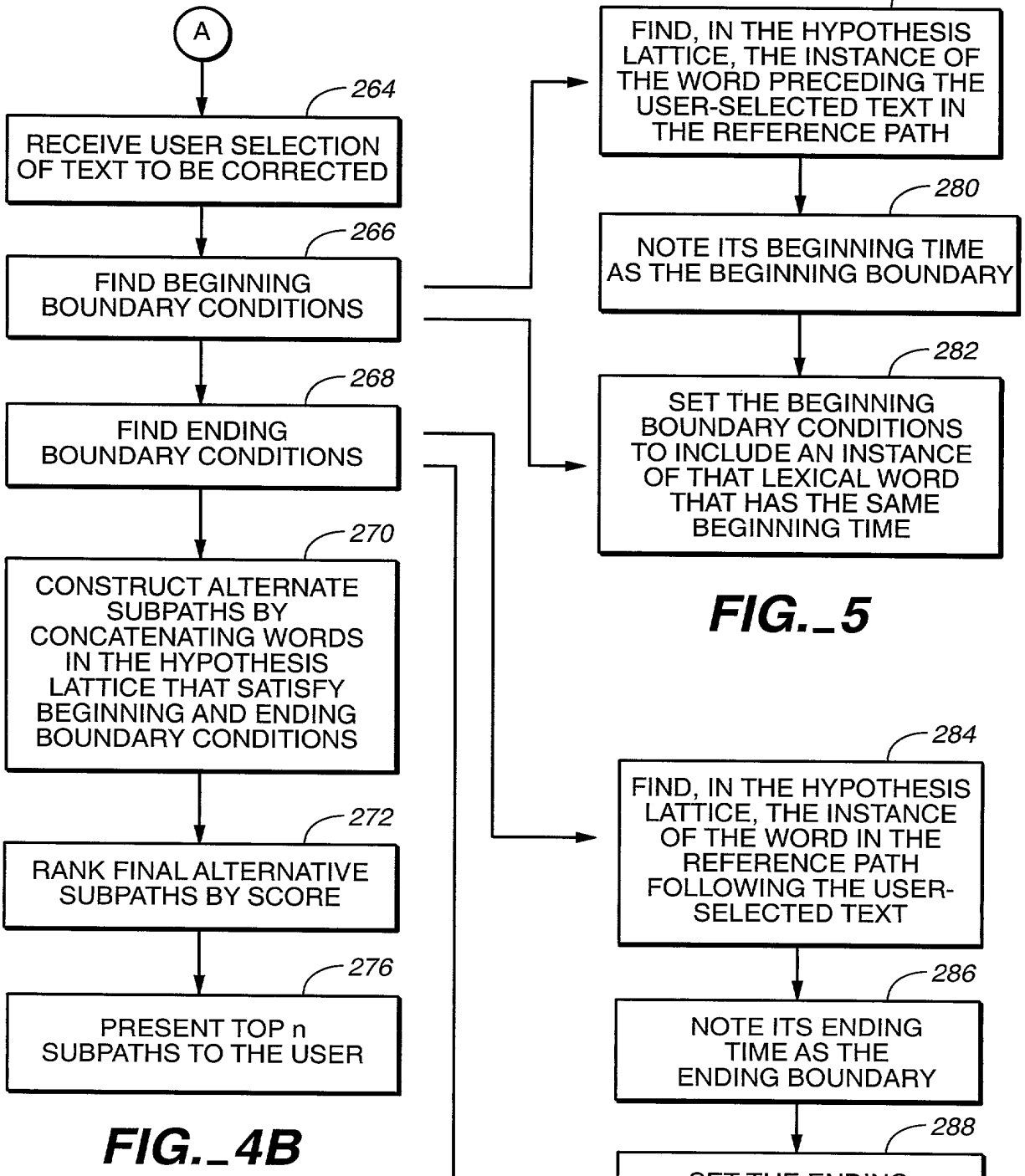


FIG._4B

FIG._5

FIG._6

FIG._7A

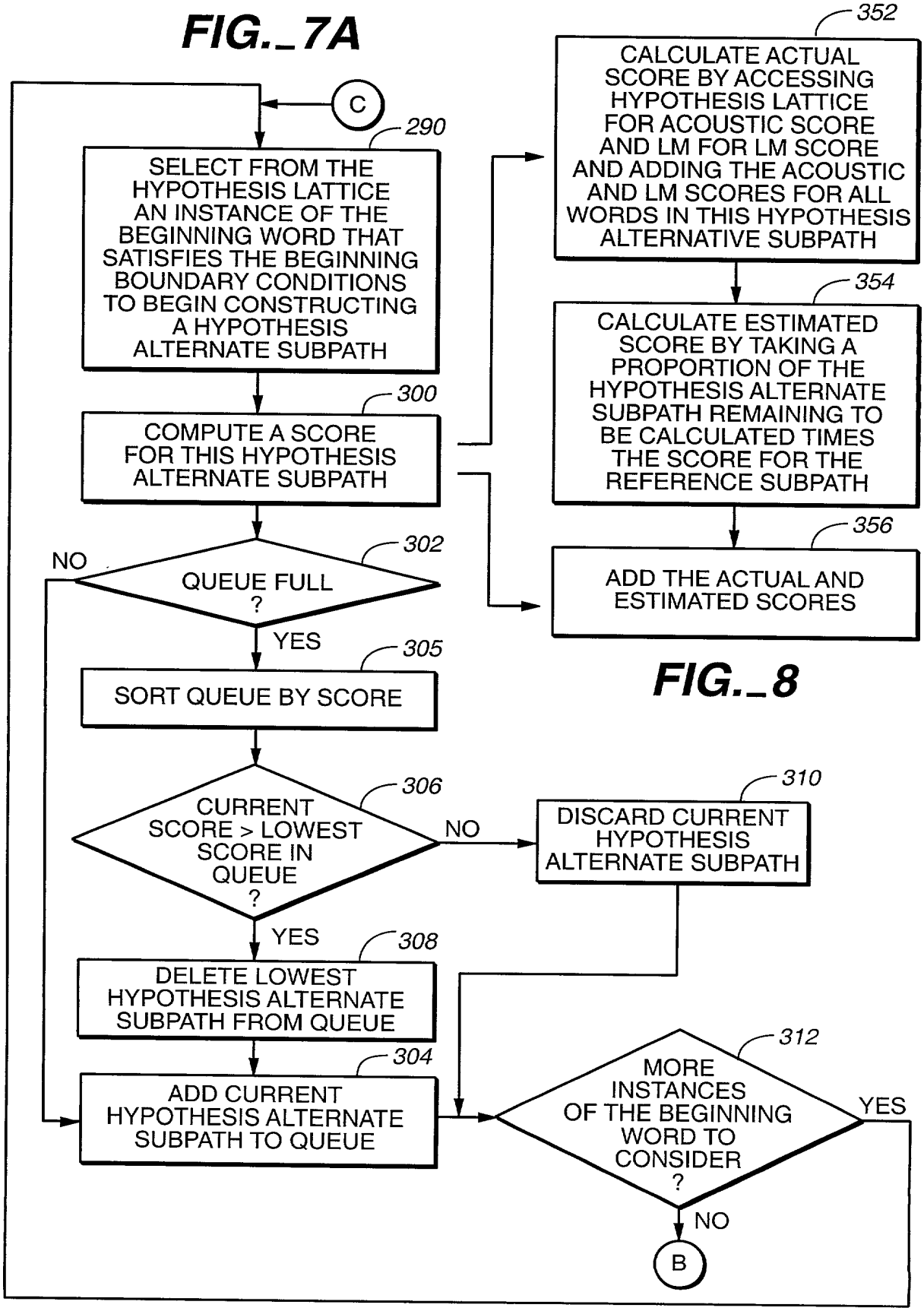


FIG._8

EXPRESS MAIL NO. EV 454 098 960 US

FIG._7B-1 FIG._7B-2

FIG._7B

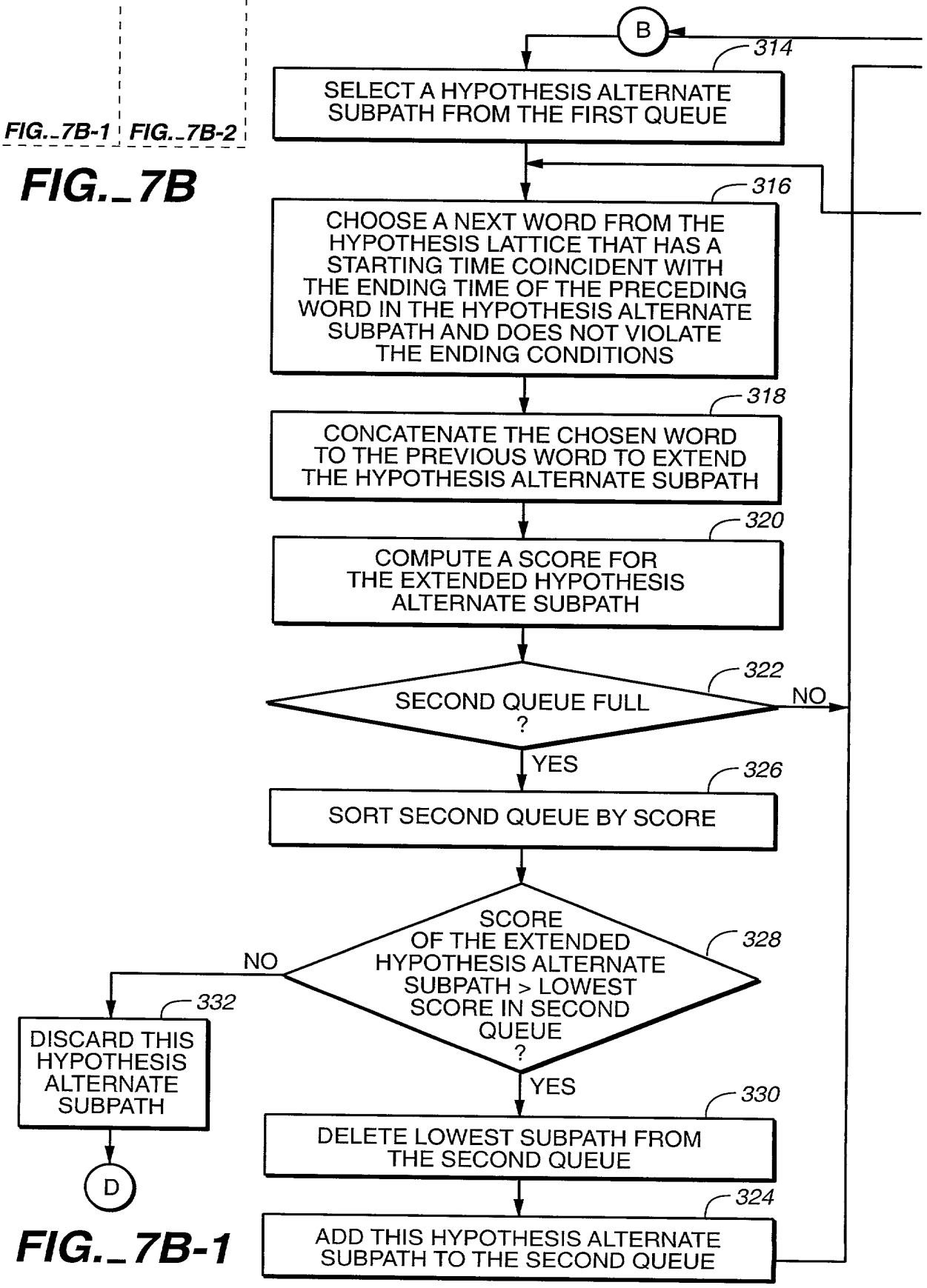


FIG._7B-1

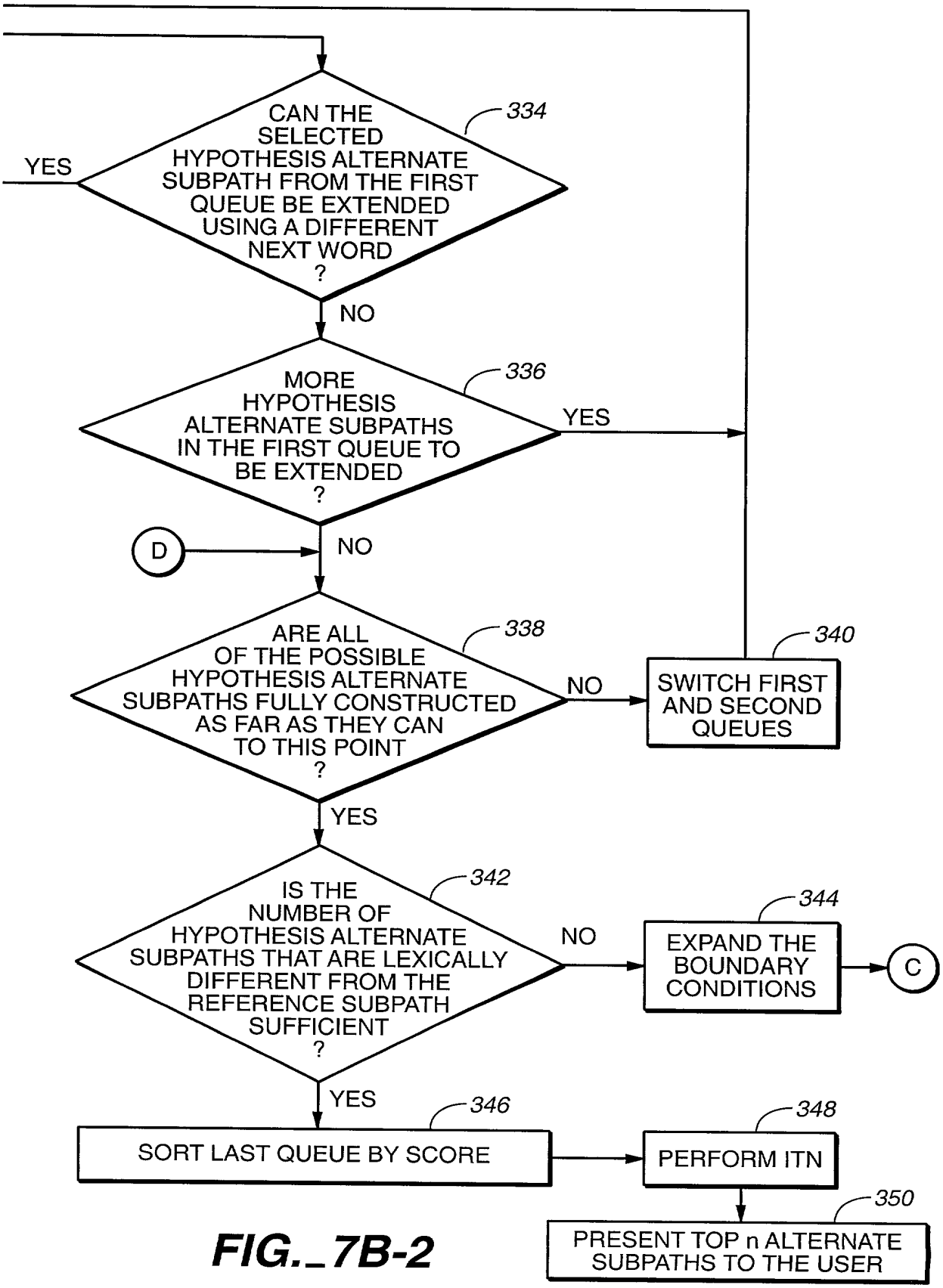

CAN THE SELECTED HYPOTHESIS ALTERNATE SUBPATH FROM THE FIRST QUEUE BE EXTENDED USING A DIFFERENT NEXT WORD ?
334
YES
NO
MORE HYPOTHESIS ALTERNATE SUBPATHS IN THE FIRST QUEUE TO BE EXTENDED ?
336
YES
D
NO
ARE ALL OF THE POSSIBLE HYPOTHESIS ALTERNATE SUBPATHS FULLY CONSTRUCTED AS FAR AS THEY CAN TO THIS POINT ?
338
NO
SWITCH FIRST AND SECOND QUEUES
340
YES
IS THE NUMBER OF HYPOTHESIS ALTERNATE SUBPATHS THAT ARE LEXICALLY DIFFERENT FROM THE REFERENCE SUBPATH SUFFICIENT ?
342
NO
EXPAND THE BOUNDARY CONDITIONS
344
C
YES
SORT LAST QUEUE BY SCORE
346
PERFORM ITN
348
PRESENT TOP n ALTERNATE SUBPATHS TO THE USER
350

FIG._7B-2